

**Texas Residential Construction Commission  
County Inspection Certification System**

**Category: Cross-Boundary Collaboration and Partnerships**

**State of Texas**

## **Executive Summary**

In 2007, the 80<sup>th</sup> Texas Legislature passed legislation requiring builders/remodelers who undertake certain residential construction projects outside of municipalities perform a series of inspections at three stages of the construction process (foundation, framing and final). Previously, only homes built within municipalities required any type of inspection before being sold. The responsibility of ensuring compliance in this area falls under the jurisdiction of the Texas Residential Construction Commission (TRCC).

To meet the challenge of assembling and registering qualified inspectors, giving builders/remodelers the ability to search for inspectors and allowing inspectors to submit inspections, the TRCC created an online program, the County Inspection Certification System (CICS). The CICS allows the TRCC to assemble a database of inspectors culminated from four state agencies and is a tool that easily allows inspectors and builders/remodelers to submit all required inspections and information to the commission. Users of the system can view real-time information and data. By analyzing data gathered in the CICS, the TRCC can monitor inspection activity in counties throughout the state. This not only ensures compliance, but also presents opportunities for further educational outreach in counties with lower inspection rates.

The CICS allowed the TRCC to meet the statutory requirement handed down by the legislature. The program also supplies a needed service to inspectors, builders/remodelers and homeowners throughout Texas. It saves these groups of people, as well as the TRCC, valuable time and money and contributes much needed data to local and state lawmakers. The CICS helps increase public safety and the quality of housing, benefiting every Texas homeowner who is building/remodeling or purchasing a new home outside of a municipality that performs inspections of construction. Ultimately, data collected from this program will assist in shaping the industry and public programs in the future.

## **C. Description of Business Problem and Solution**

During the 80th Texas Legislative session, state lawmakers passed legislation making changes to Title 16 of the Texas Property Code. The changes, which would take effect September 1, 2008, required that builders/remodelers who undertake certain residential construction projects outside of municipalities perform a series of inspections at three stages of the construction process (foundation, framing and final). Previously, only homes built within municipalities required any type of inspection before being sold. This was a concern to homeowners because there was no assurance that their homes were built to defined standards and guidelines.

Faced with this task, the Texas Residential Construction Commission (TRCC) had to create and implement a system that would:

- Register qualified inspectors from a potential 58,000+ in this state;
- Allow the 26,000+ builders/remodelers to find and hire qualified inspectors;
- Allow the inspection information on approximately 100,000 projects per year to be gathered by the commission from all across the state;
- Ensure that the projects obtained had all the required inspections; and
- Continue to allow builders/remodelers to register homes easily and efficiently.

Originally, the TRCC looked for off-the-shelf programming applications to meet these needs, but none of them were adequate enough for what the commission needed to accomplish its goals.

This deadline was one of the commission's most important, because it was required by legislative statute and could not be delayed in any way. The first barrier encountered in creating this system was that, in order to have inspections performed, the commission had to have inspectors, and did not have a system in place that would allow access to the information of all qualified inspectors. With the aid of a contracted vendor, the TRCC created a no cost online registration process for all active inspectors, including those registered with the Texas Real Estate Commission (TREC), the Texas Board of Architectural Examiners (TBAE), the Texas State Board of Professional

Engineers (TSBPE) and the TRCC's internal system, whose registrant information required that unique data crosswalks be created to allow for the real time sharing of information. The TRCC created a database that inspectors access on the TRCC's Web site, and that builders/remodelers search to find qualified inspectors in their area. The ease of use is appealing and convenient for all parties involved.

The commission also created a system allowing inspectors to enter their inspections. Each new home construction requires three types of inspections that must be performed before the home can be registered, but all three inspections might not be performed by the same inspector. An online inspection registration had to be created, allowing multiple inspectors to enter inspections for the same project.

The commission developed specifications and potential screen shots for the program. Specifications were vetted to ensure correct future operation.

Because the TRCC already had a working internal registration in place for its current Third-Party Inspectors, the commission was able to utilize some of that framework to implement into the new County Inspection Certification System (CICS). After the three inspections are entered into the CICS, builders/remodelers use the commission's current online home registration system to register the homes, just as they do with homes built within municipalities.

The solutions architecture for the CICS program included an internal Microsoft Access Frontend system that includes user forms and reports, which is then tied to a SQL server database. The commission also developed an ASP.net 2.0 web application to tie into the SQL server database.

The TRCC's pilot program for these applications began in June 2008. During this stage, the project was managed using a cyclical testing style that brought up test versions of the program, ran tests and made changes accordingly. When the commission entered its final preproduction stage, every element of the program was locked down. After the initial requirements phase, changes were made to the system. However, scope creep and off target issues were nominal as the commission followed what was initially required by statute and rules set forth by the Commission.

The final operable system was implemented on September 1, 2008, as required by the statutory deadline.

To ensure that builders/remodelers, inspectors, remodelers and homeowners were aware of the new program, several forms of educational outreach were used. The commission sent mass emails and mailings to inspectors and builders/remodelers making them aware of the new requirements. The commission advertised in trade publications and wrote articles explaining the new process.

The cost of creating and implementing this program included approximately 200 hours of programming, meeting and testing time. The actual cost of programming was approximately \$14,500.

The CICS program is innovative on many levels. It coordinates data for multiple state agencies and gathers and assimilates data from multiple private sources as well. The whole program was essentially an original creation, since a similar program did not exist. The TRCC created a system that allows external users to input project information and receive confirmation notifications. The commission is putting information and access to information right at builders' and remodelers' fingertips, allowing them to do as little paperwork as possible. The ease of transferability of this program is almost 100% because of the open architecture planning that was done.

#### **D. Significance**

The CICS program helped create oversight where there was none. The program created a review of the residential construction work being performed in unincorporated areas, where none had been before. This type of review increases the public safety and the quality of housing, benefiting every Texas homeowner who is building or purchasing a home outside of a municipality that performs inspections of construction.

The program also helps improve the coordination and sharing of data between four different state regulatory bodies, the TRCC, TREC, TBAE, and the TSBPE. In addition to the system users, all of these agencies benefit from the sharing of information and ease of registration.

Perhaps most promising is that the CICS program will provide important and, until now, never before analyzed data to decision makers. The TRCC will now be able to monitor where in the state housing growth is occurring and whether it is within a municipality or not. Lawmakers, both at state and local levels, will be able to analyze data to evaluate what kind of regulation and economic/social programs are needed throughout the state. Also, the commission will now be able to gather information on building and remodeling such as construction timeline and sales information. All of this data can now be gathered using minimal resources and queries created by end users and not programmers.

## **E. Benefit of the Project**

The CICS program benefits multiple groups of people. Inspectors can register at no cost through a single point of contact as opposed to having to register with multiple state agencies. Registering provides a source of income for inspectors and allows builders/remodelers to easily search for qualified inspectors in their area. Currently, 3,057 inspectors are registered with the program.

The system allows for a reduction of builder/remodeler error when registering homes built outside of municipalities, as the commission's home registration system will not allow a builder/remodeler to register a home if all three phase inspections were not preformed and entered. Builders/remodelers also now have backup documentation on all of their inspections and registrations, and proof of the quality of their construction projects. Because the CICS system is available entirely online, builders/remodelers also benefit from the savings on the costs on paperwork and mailing.

Homeowners also benefit from the system. Previously, homeowners outside city limits had no assurance that their homes were built to code. Now, they are afforded the same privileges as homeowners who purchase homes within municipalities. They have more assurance of the quality of construction of their home. Builders/remodelers will become more responsible for ensuring they build quality products. Because the

program provides instantaneous data, builders/remodelers can submit information and obtain instant receipts, ensuring there is no impact on closing schedules at title companies — allowing homeowners to close on schedule.

From a management perspective, the CICS program allows the commission to analyze the collected data in multiple ways. During the first eight months of operation, 25,363 inspections have occurred throughout the state and builders/remodelers registered 12,333 homes built outside of municipalities. By reviewing this data and comparing physical property locations with county maps, the commission can ensure that inspection compliance exists throughout the entire state. In counties where the commission finds little or no inspection activity occurring, coordination with county officials in that area ensures compliance. Additionally, educational outreach resources can be focused on these areas to educate builders/remodelers on how to comply with the new law.

The commission will not receive any financial return on the CICS program. The TRCC does not collect a fee from users of the service. Because the commission went directly to a Web-based solution to the problem, there is no paper system that was replaced or updated. Due to the online nature of the program, the commission experiences cost savings from this project as well. The TRCC has avoided the need for personnel that would be required to process paperwork that would exist if builders/remodelers were required to submit all their inspections on printable forms. Instead, the TRCC performs audits on the data the builders/remodelers and inspectors enter and takes appropriate actions.

The industry experiences a large cost avoidance from the online service. Money that each of the 3,057 registered inspectors would spend if they were required to mail in their paper registration form and their inspections to the commission will instead be put into their businesses and the economy.

The ultimate non-financial return on the commission's investment is that consumers building and buying homes in non-municipalities have the same oversight that those within municipalities have. The CICS program will continue to promote the commission's goal of offering quality construction to Texans.